

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE INSECT PEST SURVEY BULLETIN.

A monthly review of entomological conditions throughout the United States.

Volume 1.

September 1, 1921.

Number 5.

BUREAU OF ENTOMOLOGY
UNITED STATES
DEPARTMENT OF AGRICULTURE
AND
THE STATE ENTOMOLOGICAL
AGENCIES COOPERATING.

OUTSTANDING ENTOMOLOGICAL FEATURES OF AUGUST, 1921

The most important insect development of the month has been the terrific outbreak of the boll weevil throughout the cotton belt. Estimates have been made of a loss of \$1,116,000 bales in the prospective production since last month's crop forecast, and the smallest yield per acre in 56 years is now anticipated, the crop being less than one-half the normal.

The New York Hessian fly survey, which has just been received, shows an average infestation for the State of 5.24 per cent, ranging from 0.44 per cent in Monroe County to 10.6 per cent in Orleans County.

The jointworm field-observation stations of the Bureau of Entomology report a decided decrease in infestation as compared with last year in Indiana and about the same infestation as last year in Illinois.

The coulee cricket has appeared in threatening numbers in parts of Montana and the Mormon cricket has been reported as occurring in destructive numbers in Colorado.

The Governor of Colorado has authorized the expenditure of \$10,000 to combat a very serious outbreak of the long-winged grasshopper in Pueblo, El Paso, Crowley, and Lincoln Counties.

Seven new townships in Pennsylvania and two townships and six islands in Lake Erie, in Ohio, are now known to be infested by the European corn borer.

The alfalfa caterpillar is worse than it has been during the past five years in parts of California, and about one-fourth of the third and fourth cuttings has been destroyed.

An outbreak of the velvet bean caterpillar in Florida has been reported, but the seriousness of the outbreak is not yet evident.

The codling moth is reported as being seriously abundant in parts of New York State on apple, and pears in Genesee County are 100 per cent infested. This pest is less numerous than usual in Illinois and Idaho.

The apple and thorn skeletonizer, which was discovered in Connecticut last year, is spreading rapidly.

The Colorado potato beetle is reported as being very serious in Wisconsin and parts of New York and the apple leafhopper is appearing for the first time in Wisconsin as a limiting factor in potato production. This pest is also very destructive in Minnesota and parts of New York.

Massachusetts, New York, and Wisconsin report the onion crop as decidedly damaged by onion thrips this year.

The fall webworm is more numerous than usual this year in Massachusetts, Connecticut, Delaware, Indiana, Maryland, Nebraska, and Wisconsin.

An unusually serious outbreak of the bagworm is reported from Kansas. This pest is more numerous than usual in Arkansas and locally destructive in New York and Pennsylvania.

A heavy flight of the gipsy moth is reported from Auburn, Maine.

The infestation of households by fleas in the Middle West has apparently abated, but a new series of outbreaks is now being reported from New England.

The nose fly is reported from New York, Texas, and California and the sucking goat louse is very seriously affecting the kid crop in Texas.

CEREAL AND FORAGE CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

New York C. R. Crosby (survey for 1921). "Hessian fly survey was carried on in 15 counties in New York State, 13 in the western part of the State, and 2 in the southeastern part of the State. The average infestation for the 15 counties was 5.24 per cent. The county infestation was as follows:

Per cent		Per cent		Per cent	
Niagara	- - - 8.60	Wyoming	- - - 4.0	Seneca	- - - 9.66
Erie	- - - 5.10	Monroe	- - - .44	Cayuga	- - - 5.60
Orleans	- - - 10.60	Wayne	- - - 8.70	Tompkins	- - - 9.30
Livingston	- - - 2.60	Ontario	- - - 2.50	Ulster	- - - 6.00
Genesee	- - - 4.11	Yates	- - - 1.0	Columbia	- - - 9.30

Indiana J. J. Davis (August 16). "The Hessian fly is sufficiently abundant in all parts of Indiana to call for special efforts on the part of the entomologists to secure universal cooperation in sowing wheat after the fly-free date. A poster is being issued and sufficient publicity will be given through newspapers and county agents to insure a maximum of cooperation. In this campaign the entomologists of the State are having the assistance and cooperation of the Federal entomologists located in the territory."

Illinois W. P. Flint (August 18). "Throughout the greater part of the State puparia are scarce in the wheat stubble. There are a few of the western counties along the Mississippi River where flies are abundant."

Oregon L. P. Rockwood (August 15). "There has been more lodging of wheat in the Willamette Valley in fields moderately infested by Hessian fly than usual. This is attributed to the prevalence of strong northwesterly winds during July. One farmer reports as much as one-third of his crop lodged."

WHEAT MIDGE (Contarinia tritici Kirby)

New York G. E. Smith (July 16). "This insect is quite plentiful in Orleans County."

Indiana J. J. Davis (August 16). "The small wheat midge maggots have been unusually abundant in threshed grain but from all observations to date the maggots with the threshed grain die before reaching maturity."

Washington L. P. Rockwood (August 13). "The spring-wheat-infesting brood was practically over by the last week in July at Lynden, Wash."

COULEE CRICKET (Paranabrus scabricollis Thom.)

Montana A. L. Strand (August 10). "The appearance of ~~this~~ insect in considerable numbers in Toole and Teton Counties has been the cause of some conjecture among the farmers as to the damage which might occur next season. We have no record of this insect's occurrence in these localities before. It was reported by the farmers that the crickets came in from the northwest. This is a common insect in the mountains and valleys in some parts of Montana, but has never been observed so far east of the mountainous section before."

MOORMON CRICKET (Anabrus simplex Hald.)

Colorado C. P. Gillette. "On August 6 Mr. C. L. Corkins was sent to western Routt County to investigate a reported outbreak of the so-called Mormon cricket, and try out the poisoned-bran mash as a remedy. The only modification made by Mr. Corkins in the regular Kansas formula was that of doubling the proportion of strychnine in the mixture. The results obtained were excellent. Apparently less than 10 per cent of the crickets escaped being poisoned on the treated areas."

PALE WESTERN CUTWORM (Porosagrotis orthogonia Morr.)

Montana A. L. Strand (July 22.) "This insect, although of general distribution in that part of Montana east of the Continental Divide, was not so generally destructive throughout that entire section this season as in 1920, but in the old stamping ground of the insect (central northern Montana) it was more destructive than in any previous year. Sixth and seventh instar larvae were collected as late as July 7, although most of the damage was done prior to June 20. This cutworm has done much damage to young corn in eastern Montana, but has been so mixed up with other species that it is impossible to estimate the damage done by it with any degree of accuracy. In a few instances 25 per cent of the stand and in one instance 50 per cent has been destroyed. This season in the five northern counties where last year the loss in seeded acreage due to this species ranged from 25.1 to 47.1 per cent the damage in 1921 has been fully as great and in two of the counties greater."

JOINTWORM (Harmolita tritici Fitch)

Indiana The jointworm experimental plot records have just been received. Mr. W. P. Cartwright reports from Princeton, under date of June 10, that 18 per cent of the crop was infested, while last year

at this point 26.5 per cent of the crop was infested. Under date of June 15 Mr. W. H. Larrimer reports from Salem that 3 per cent of the crop is infested this year as compared with 23 per cent infestation last year, and under date of June 25 he reports from Logansport that 14 per cent of the crop is infested as compared with 53 per cent last year."

Illinois

W. P. Cartwright (June 13, Grand Chain). "Fifty-five per cent of culms infested as compared with 53.5 per cent infested last year. At Sparta 23 per cent of the culms were infested as compared with 24 per cent infestation last year. (June 17); at Centralia, 0.3 per cent infestation as compared with no infestation last year."

W. P. Flint (August 18). "Several local areas of heavy infestation in the south and south-central parts of the State. The insect seems to be about 50 per cent parasitized."

New York

C. R. Crosby (survey for 1921). "Jointworm survey was carried on in 15 counties in New York State, 13 in the western part of the State, and 2 in the southeastern part of the State. The average infestation for the 15 counties was 2.89 per cent. The percentage infestation in the several counties was as follows:

	Per cent		Per cent		Per cent
Cayuga - - -	4.80	Monroe - - -	6.40	Tompkins - - -	0.00
Columbia - - -	4.40	Niagara - - -	2.20	Ulster - - -	.66
Erie - - - -	.57	Ontario - - -	2.70	Wayne - - -	5.80
Genesee - - -	5.80	Orleans - - -	2.60	Wyoming - - -	.46
Livingston -	4.05	Seneca - - -	2.00	Yates - - -	1.00

WHEAT-SHEATH GALL JOINTWORM (Harmolita vaginicola)

New York

C. R. Crosby (survey for 1921). "In connection with the Hessian fly and jointworm survey this insect was found in 5 counties. The average infestation of these counties was 0.79 per cent. The percentage infestation in the several counties was as follows:

	Per cent		Per cent		Per cent
Cayuga - - -	2.4	Monroe - - -	0.44	Ulster - - -	0.66
Livingston -	.13			Wayne - - -	.36

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hübner.)

New York

L. O. Gratz (July 30). "Easily found in any field at Eden in Erie County. Many ears have been discarded from the marketable lot. Last year a few larvae were reported, but this year apparently marks the beginning of a serious infestation."

F. Z. Hartzell (August 13, Chautauqua County). "Present in the northern part which is under quarantine; numbers not great, however."

Pennsylvania W. R. Walton (August 26). "During August the following towns in the extreme northwestern part of Pennsylvania bordering Lake Erie from the New York State line to the Ohio State line have been found infested: Harbor Creek, Greene, Mill Creek, Summit, McKean, Fairview, and Springfield. The township of Girard had been found infested two years ago and is still included in the infested area."

Ohio W. R. Walton (August 30). "Infestations of the corn borer were discovered during the month of August in the following localities in Ohio: North Bass Island, Middle Bass Island, South Bass Island, Kellys Island, Catawba Islands and the towns of Danbury, Portage, Huron and Avon Lake. These islands extend at least half way across the lake toward the international border at the western end of Lake Erie just north of Sandusky. Infestations have also been discovered in the northeastern corner of Ohio, bordering Lake Erie in the townships of Ashtabula and Saybrook and continuously along the lake as far west as Willoughby."

CORN EARWORM (Chloridea obsoleta Fab.)

New York F. Z. Hartzell (August 13). "Some injury at present in Chautauqua County."

C. R. Crosby and assistants report finding this insect in some fields in Erie County on July 22, a second infestation being noted in the same county on August 20 in late sweet corn. In the middle of July it was doing considerable damage to early sweet corn in Nassau County, being only occasionally found on the later corn in the middle of August. Early in July it also did a slight amount of damage in Columbia County."

Illinois W. P. Flint (August 18). "Much more abundant in both field and sweet corn than during an average year. Seventy-five per cent of the sweet corn ears being infested. Moths of the third brood are just starting to appear."

Missouri L. Haseman (August 29). "The corn earworm is increasing in numbers and has been reported from various sections of the State."

Texas O. G. Babcock (July 29). "About as abundant as usual in this State."

FALL ARMY WORM (Laphygma frugiperda S. & A.)

Illinois W. P. Flint (August 18). "Moths have been taken commonly in bait traps for the past three weeks in Central Illinois."

Florida J. R. Watson (August 16). "Quite numerous throughout the State but confining their work mostly to the grass crops."

Missouri L. Haseman (August 29). "Just recently the fall army worm has begun to attract attention, and in central Missouri the larvae of the present brood are now half grown. They are damaging sweet corn and other garden crops, but as yet have not been reported on alfalfa or other legumes."

Louisiana T. H. Jones (August 9). "An outbreak noted on the grounds of the Experiment Station attacking grass and low-growing crops in grassy fields at Baton Rouge."

SUGAR-CANE BORER (Diatraea saccharalis Fab.)

Louisiana T. H. Jones (August 16). "Mr. W. R. Dodson estimates that in about 200 acres of late corn planted during the last week in April and the first week in May the loss will be about 5,000 bushels of corn because of the severe infestation of this insect. The stalks and ears are very badly attacked and in the case of the ears secondary causes, such as other insects, fungi, and bacteria, will make them largely unfit for feeding purposes."

CHINCH BUG (Blissus leucopterus Say)

Indiana J. J. Davis (August 16). "Immature chinch bugs have been present in abundance in corn, although heavy rains for the past week may have reduced their numbers somewhat."

Illinois W. P. Flint (August 18). "Heavy general rains have greatly reduced the number of bugs in most of the counties infested early in the year. In only a few counties will corn be seriously damaged. The parasite Eumicrosoma benificia has destroyed from 30 to 40 per cent of these insects."

Michigan R. G. Carr (August 10) "A slightly larger infestation than usual occurred this year at Adrian, where about 10 per cent of the crop was damaged. The use of furrows and barriers was quite successful, many bushels of the insects being thus killed."

Nebraska M. H. Swenk (August 15). "Shortly after the middle of July an outbreak of the chinch bug developed in Knox County in northeastern Nebraska, after injury in the infested area along the southern border of the State had ceased. The bugs were first noted in the barley fields and when these were harvested they migrated to the corn and did a considerable amount of damage in some fields."

Florida Jeff Chaffin (August 21). "Reports from all over the State indicate that this insect is doing considerable damage to lawns, especially St. Augustine grass, which they seem to prefer."

Missouri L. Haseman (August 29). "Some complaints continue to come in regarding the damage from summer broods of chinch bugs, but the abundant rainfall of the past few weeks seems to help materially."

WHITE GRUBS (Phyllophaga spp.)

Illinois W. P. Flint (August 16). "Severe damage to corn reported from 10 or 15 counties in the northern half of the State, mainly corn on sod or small grain stubble. Blue grass pastures also severely damaged."

Wisconsin

S. B. Fracker (August 25). "Damage is not as severe as in other white grub years. Crows are reported as attacking the grubs in large numbers at Platteville."

ALFALFA AND CLOVER

BLISTER BEETLE (Epicauta lemniscata Fab.)

Nebraska

Myron H. Swenk (August 15). "The striped blister beetle continued injury during latter July on alfalfa and potatoes, especially in Thayer and Adams Counties."

CLOVER APHIS (Anuraphis bakeri Cowen)

Idaho

R. H. Smith (August 15). "This insect is less abundant than usual this year. Unusual rainfall during May and June probably prevented this pest from becoming seriously destructive."

CLOVER ROOT-BORER (Hylastinus obscurus Marsh.)

Oregon

D. P. Rockwood (August 13). "Damage by this pest is more severe than for the past two years in many first-crop clover fields. Dry weather has retarded growth of clover roots and high temperatures have accelerated the development of root borers. Fields on poorer soils most seriously damaged."

CLOVER SEED CHALCIS (Bruchophagus funebris How.)

New York

L. P. Wehrle (August 16). "Adults now present and fairly common about Ithaca."

ALFALFA CATERPILLAR (Eurymus eurytheme Bdv.)

California

H. G. Smith (August 20). "Mr. Fred C. Brossius reports having the worst infestation of this pest that they have had in the past five years, the insects destroying about 25 per cent of the third and fourth cuttings."

CLOVER SEED CATERPILLAR (Enarmonia interstinctana Clem.)

New York

L. P. Wehrle (August 16). "Second-brood moths have been on the wing for about 2 weeks and eggs are now being deposited. The insect is fairly abundant about Ithaca."

CLOVER-SEED MIDGE (Dasyneura leguminicola Lint.)

New York

L. P. Wehrle (August 16). "Second-brood larvae are now beginning to appear. Adults in flight and ovipositing. Judging from the abundance this season this insect will probably do considerable damage. It is the most important clover seed pest in the vicinity of Ithaca."

LESSER CLOVER-LEAF WEEVIL (Phytonomus nigrirostris Fab.)

New York

J. D. Detwiler (July 25). "This insect is very scarce about Ithaca this year, due probably to heavy parasitism early in the season."

COWPEAS

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

Mississippi R. W. Harned (August 29). "Cowpea-pod weevil seems to be more abundant than usual. Reports of serious damage to cowpeas have been received from Adams, Itawamba, Lafayette, Lauderdale, Pontotoc, and Wayne Counties."

Louisiana T. H. Jones (July 11). "Mr. T. H. Casonova, county agent of Vermillion Parish, reports that this insect is doing some damage in his parish."

BEAN LEAF-BEETLE (Cerotoma trifurcata Foerst.)

Louisiana T. H. Jones (July 12). "Serious damage to the foliage of cowpeas growing in corn fields noted in Lafourche Parish."

T. H. Jones. "Mr. C. B. Gouaux, engaged in extension work in agriculture for Louisiana State University, reports that while on a recent trip he found this insect causing severe damage to cowpeas in cornfields in the Paincourtville, Napoleonville, and Franklin sections."

SOUTHERN GREEN PLANT-BUG (Nezara viridula L.)

Louisiana T. H. Jones. "Mr. C. B. Gouaux reports that he found all stages of this insect very numerous on cowpeas in the cornfields in the Paincourtville, Napoleonville, and Franklin districts."

VELVET BEAN

VELVET BEAN CATERPILLAR (Anticarsia gemmatilis Hübner.)

Florida (Special Report No. 16). "Reports have just been received from Mr. J. R. Watson and Mr. Jeff Chaffin that the velvet bean caterpillar has just appeared in central and northern Florida. Adults were first observed at Cocoa in Brevard County on August 15 and at Gainesville in Alachua County on August 16. From previous observations this insect should be expected to reach southern Georgia by September 1 and southern South Carolina by September 10. This insect is a serious pest to the velvet bean throughout Florida and southern Georgia and, though the moths in their annual flight have been recorded as extending as far north as southern New York, it is not recorded as a serious pest of any other forage crop."

M I S C E L L A N E O U S C E R E A L A N D F O R A G E I N S E C T S

GRASSHOPPERS (Acridiidae)

New York G. E. Smith (July 23). "As early as July 16, grasshoppers were becoming very abundant in most sections of Orleans County and doing considerable damage to oats at Barre; about 50 per cent of the oats were destroyed in one field and corn and bean fields were being badly damaged."

- Delaware C. O. Houghton (July 21). "Much less abundant than usual about Newark."
- Illinois W. P. Flint (August 18). "Damage is being done in only a few localities in the southwestern part of the State. Aside from clover, young orchards and alfalfa have been slightly injured."
- Nebraska M. H. Swenk (August 15). "During late July and early August grasshoppers were the most prominent insect pests on the corn and forage crops of Nebraska; in addition to the southeastern counties mentioned in the last report, grasshoppers were reported as seriously injurious at places in Knox, Custer, and Saline Counties."
- Wisconsin S. B. Fracker (August 25). "The worst outbreak ever recorded occurred in the northern third of the State this year. General application of control measures helped to reduce the losses."
- Montana R. A. Cooley (August 23). "Considerable late damage from grasshoppers has occurred, especially where control programs were not carried out earlier in the season. The spraying of the leaves has caused a decided decrease in the yield of wheat. Oats and barley have been very seriously injured by the hoppers eating off the entire heads."
- Oregon L. P. Rockwood (August 13). "Melanoplus saltator, M. femurrubrum, and M. atlanis are more than usually abundant in clover fields and waste places. Will cause damage to late second-crop clover, corn, and gardens."

LONG-WINGED LOCUST (Dissosteira longipennis Thom.)

- Colorado C. P. Gillette. "A severe outbreak of this insect over a practically continuous area of nearly 40 miles in extent, covering portions of Pueblo, El Paso, Crowley, and Lincoln Counties was sufficiently alarming to cause Governor Oliver H. Shoup to call together the commissioners and the county agents of these counties and representatives of the office of State entomologist for a conference on the situation on July 1. A somewhat hasty survey of the territory infested had been made by Mr. C. L. Corkins, of the office of State entomologist, and Mr. W. H. Sawhill, county agent for Pueblo County, and an estimate made that a campaign could be put on for the control of the outbreak at an expense of, not to exceed, \$10,000. This fund was promptly raised by the counties and the State, through the promise of the Governor, and the campaign turned over to Mr. Corkins to put through. The work was quickly organized and inside of ten days the grasshoppers were practically annihilated. Not more than 10 per cent, it is estimated, escaped being poisoned. These grasshoppers had migrated in the nymph stage from 2 to 10 miles from their hatching grounds. At the time the campaign of destruction was inaugurated, winged individuals were just beginning to appear. The area covered was devoted to grazing and dry-farming for the most part. Many crops were completely ruined while others were passed by without very serious damage. The poisoned bait used was arsenic bran-mash."

FRUIT INSECTS

APPLE

GREEN APPLE APHIS (Aphis pomi DeG.)

- New York P. J. Parrott (July 16). "Terminal growth of apple tree heavily infested in Ontario County. One nurseryman near Geneva has just completed the fourth treatment of apple plantings."
- L. F. Strickland (August 15). "Almost entirely absent in Niagara County."
- F. Z. Hartzell (August 13). "Much less numerous than usual in Chautauqua County."
- C. R. Crosby and assistants report this insect as fairly common during the middle of July in Nassau County. At that time it was not very abundant in Albany County, but by July 22 terminal growth of some young trees was noticed to be heavily infested. By August 15 no serious outbreak had developed, however. In Ulster County the insect was very abundant on occasional trees about the middle of July; they were disappearing rapidly by July 23, and had practically disappeared from the apple tree by July 30; however, belated individuals were still to be found on young trees by August 17, and the infestation was noticed to have stunted the growth to a considerable extent. This insect was not abundant enough in Clinton County to attract much attention.
- Illinois W. P. Flint (August 18). "Reported as doing some damage in 2 and 3 year old apple orchards in southern part of State."
- Idaho R. H. Smith (August 15). "This insect was becoming apparent in younger orchards about July 1, and has continued to increase with great rapidity. Natural enemies are getting in effective work at present. Control measures are being used in many orchards."

WOOLLY APPLE APHIS (Eriosoma lanigerum Hausm.)

- New York C. R. Crosby and assistants report this insect as being only occasionally observed in Ulster County on August 17; quite numerous about that time in Albany County, and occasionally observed in Nassau County.
- F. Z. Hartzell (August 13). "Occasionally observed in Chautauqua County."
- L. F. Strickland (August 15). "The infestation at least 50 per cent less than that of 1920 in Niagara County."
- Delaware C. O. Houghton (July 25). "About normally abundant at Newark."
- Wisconsin R. A. Irwin (August 17). "Unusual in Wisconsin, but doing serious injury this year."

Idaho

R. H. Smith (August 15). "More abundant than usual about Twin Falls; young orchards especially are seriously effected. Nicotine sulphate when used with arsenate of lead and a spreader for codling moth has given satisfactory control for this pest."

CODLING MOTH (Carpocapsa pomonella L.)

New York

C. R. Crosby and assistants report about 5 per cent of side worm injury observed in Wayne County on July 16. On same date a larva was observed which was apparently ready to pupate; the majority of the larvae, however, were not more than about two-thirds grown. In Orleans County side worms were rather abundant in most orchards by July 23, especially those which received no June spray; five orchards inspected during the third week in July which received a thorough spray between June 15 and 25 showed but very small percentage of damage; larvae in most cases were then about half grown; by July 30 most of the larvae were full grown in this county and many had begun to pupate, and by August 6 a majority of the larvae had pupated. On August 8 moths of the second brood were seen, but no eggs were found up to August 12. On August 13 eggs and the first larvae of the second brood were observed and larvae were found working into the apples on August 19. In Genesee County, widespread injury, especially on pears, was reported July 16; by July 22 the infestation had developed to a very serious extent and by July 30 practically all of the fruit was infested. In some orchards by August 15 side injury by late-emerging caterpillars of the first brood was showing up prominently. This insect is also reported as being very abundant in Albany and Nassau Counties, and the infestation in Niagara County is considerably greater than last year.

F. Z. Hartzell (August 13). "Insect about as numerous as usual, but percentage of the crop infested much heavier on account of light crop in Chautauqua County."

Illinois

W. P. Flint (August 18). "Less abundant than during the last three years in the southern two-thirds of the State. Indications are that the third brood will not be as destructive as usual."

Montana

R. A. Cooley (August 15). "The codling moth is becoming more and more general in its distribution in the Bitter Root Valley and is causing very serious losses."

Idaho

R. H. Smith (August 15). "Less numerous than usual about Twin Falls; first moth of the second brood trapped on July 21; first-brood worms have been coming down constantly since July 8."

APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)

Connecticut

W. E. Britton (July 29). "Apparently this insect, which was discovered in the State late in 1920, has spread rapidly and is now found at Wallingford, Hampden, New Haven, Stamford, New Canaan, Danbury and Greenwich."

FRUIT-TREE LEAF-ROLLER (Archips argyrospila Walk.)

- Missouri L. Haseman (August 29). "Of late one of the foliage-feeding caterpillars on apple, apparently the leaf-roller, has been attracting attention in various parts of the State."
- Montana R. A. Cooley (August 15). "The apple-tree leaf-roller continues to be a very serious pest in the upper part of the Bitter Root Valley. Un-sprayed orchards are heavily infested and no fruit set this year on trees defoliated in 1920."

RED HUMPED APPLE CATERPILLAR (Schizura concinna S. & A.)

- New York F. Z. Hartzell (August 13). "Less numerous than usual in Chautauqua County."
- C. R. Crosby and assistants report this insect as now working in Orleans, Ulster, Columbia, and Tompkins Counties, but decidedly less numerous than usual, and doing but little damage.

YELLOW-NECKED CATERPILLAR (Datana ministra Drury)

- Maine E. M. Patch (August 19). "Specimens were received from Livermore Falls on August 12. It has been several years since this insect has been present in injurious numbers in this State."
- New York E. P. Felt (August 1). "Yellow-necked apple-tree caterpillars occurred at Shushan in Washington County."
- F. Z. Hartzell (August 13). "Very scarce in Chautauqua County."
- J. D. Detwiler (August 25). "One colony observed at Ithaca, less abundant than during the past several years, larvae in about the third instar."

APPLE MAGGOT (Rhagoletis pomonella Walsh)

- New York C. R. Crosby and assistants report this insect as having been common in unsprayed orchards in Nassau County about the middle of July; present but not numerous about that time in Ulster County. By August 7 slight damage was occasioned in Ulster County. In Albany County this insect was much more serious than usual about July 26, a special spray was applied for the flies, but egg laying had been in progress for some time previous to this treatment and by August 15 very serious damage had been done to early apples. In Columbia County the flies were much less numerous than for the past several years. Very slight damage was also done in Clinton County.
- Minnesota A. G. Ruggles (August 19). "The apple maggot has been taken in unusual numbers on apple trees this year by our inspectors."

APPLE LEAFHOPPER (Empoasca mali LeB.)

- New York P. J. Parrott (July 16). "Very abundant on young apple trees, causing noticeable curling of the leaves, in Ontario County."
- L. F. Strickland (August 15). "Very severe on young apple trees in many places in Niagara County."
- F. Z. Hartzell (August 13). "Rather common in Chautauqua County."
- C. R. Crosby and assistants report this insect as becoming quite numerous by the end of July, in Genesee County, and present in small numbers in Ulster and Nassau Counties.

- Montana R. A. Cooley (August 15). "This insect is more numerous than usual in the Bitter Root Valley where much first-class fruit has changed to third class on account of these stings."

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

- New York C. R. Crosby and assistants report this insect as badly infesting young trees in Tioga and Cortland Counties, and about normally abundant in Chautauqua County; also, that it has been observed to some extent in Nassau County.
- Minnesota A. G. Ruggles (August 19). "Oyster-shell scale is very abundant in the southeastern portion of the State, becoming more and more so."
- Nebraska M. H. Swenk (August 15). "The scale insect most frequently reported has been the oyster-shell scale."

FLAT-HEADED APPLE-TREE BORER (Chrysobothris femorata Fab.)

- New York J. B. Palmer (August 17). "Larvae of the new brood observed today. Damage serious in one young neglected orchard. The insect is quite abundant in several young orchards in Ulster County."

RED SPIDER (Tetranychus telarius L.)

- Idaho R. H. Smith (August 1). "This insect is much less abundant than usual; the unusual heavy rainfall during May and June greatly retarded the development of this pest."

EUROPEAN RED MITE (Paratetranychus pilosus Can. & Fanz.)

- Massachusetts E. R. Farrar (August 14). "Not as abundant as last year at Lincoln; heavy rains reduced the outbreak."
- Connecticut Philip Garman (August 1). "Not as abundant as last year at Hampden and Middletown."
- New York L. F. Strickland (August 15). "Abundant in scattered instances on apple; on plum much more severe than last year. Prune orchards not sprayed in mid July are suffering from the results of this mite's work."

Idaho

R. H. Smith (August 15). "This pest was discovered in Idaho in the spring of 1920. During the summer of this year it became exceedingly abundant and more destructive in some orchards near Twin Falls. Great numbers of mites hatched this spring, but these were largely destroyed during May by frequent heavy showers. The mites are generally present in small numbers in orchards at present."

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Indiana

J. J. Davis (August 16). "The shot-hole borer is very abundant this year, especially attacking apple and cherry."

CLOVER MITE (Bryobia praetiosa Koch)

Idaho

R. H. Smith (August 15). "About as abundant as usual in southwestern Idaho. Control measures have been necessary in some orchards."

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

New York

C. R. Crosby and assistants report flies of the second brood beginning to hatch in Orleans County July 16, the foliage and fruit in many orchards smeared with honeydew. By July 23 most of the nymphs of the second brood had reached adult stage; flies of this brood were depositing eggs on July 30. By August 6 the third-brood nymphs were beginning to hatch. By August 20 it was evident that the Bartlett pears would be harvested before psylla damaged them in Orleans County. This insect was also very destructive in Genesee and Ulster Counties. In Albany County a special spray was applied on July 13, by which time most of the insects had reached the fly stage.

F. Z. Hartzell (July 16). "Very scarce throughout Chautauqua County. Adults now present."

L. F. Strickland (August 15). "A very heavy third brood of nymphs hatching in Niagara County."

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

New York

C. R. Crosby and assistants report this insect as very abundant in Dutchess, Genesee, Chemung, Ontario, Otsego, Monroe, Albany, and Ulster Counties.

Montana

R. A. Cooley (August 15). "Except where the trees were sprayed with lime-sulphur or miscible oil, there are very severe infestations of pear-leaf blister mite in the apple orchards of the Bitter Root Valley."

PEAR AND CHERRY SLUG (Caliroa cerasi L.)

Connecticut

W. E. Britton (July 6). "Mr. H. M. Rogers reports that this insect is more abundant than usual at Southington, several young trees being entirely skeletonized."

- New York C. R. Crosby and assistants report this insect as having been quite serious in Chautauqua County about the middle of July, and in small numbers in Niagara, Albany, and Nassau Counties.
- Indiana J. J. Davis (August 16). "This insect still continues to be the subject of many inquiries."
- Montana R. A. Cooley (August 15). "This insect is unusually prevalent in the Bitter Root Valley this season."

PEACH

PEACH-TREE BORER (Aegeria exitiosa Say)

- Connecticut M. P. Zappe (August 1). "More abundant than last year at Hampden."
- New York C. R. Crosby and assistants report this insect as ruining a number of trees in Genesee and Albany Counties, and being quite common in uncared-for orchards in Nassau County.
- Indiana J. J. Davis (August 16). "The peach-tree borer is abundant throughout the State. Almost every mail brings in one or more inquiries regarding the paradichlorobenzene treatment."

LESSER PEACH-TREE BORER (Aegeria pictipes G. & R.)

- New York G. E. Smith (July 30). "Found abundant in one orchard in Orleans County."

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

- New York F. Z. Hartzell (August 13). "Doing some damage in Chautauqua County, but less abundant than usual."

PLUM

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

- New York C. R. Crosby and assistants report this insect as abundant in Genesee County, where it is causing considerable damage. It has also caused a great deal of fruit to fall prematurely in Albany County. It is about as numerous as usual in Chautauqua County, but the fruit is much more seriously infested than usual owing to light crop.
- Illinois W. P. Flint (August 18). "The plum curculio has caused severe damage in the few apple orchards having a crop this season. Maiden's blush reported very severely damaged."

TWELVE-SPOTTED CUCUMBER BEETLE (Diabrotica 12-punctata Oliv.)

- California O. E. Bremner (Santa Rosa). "A sporadic outbreak of this insect in several localities about the middle of June. The insects entirely defoliating peach and prune trees and completely destroying the apricot and cherry crops. The beetles appeared in countless numbers."

RASPBERRY

RASPBERRY FRUITWORM (Byturus unicolor Say)

New York J. B. Palmer (August 6). "This insect has now disappeared from the plants, but on account of the destructive work early in the season, combined with mosaic or yellows, many plantings are being pulled out in Ulster County."

CURRANT

CURRANT APHIS (Myzus ribis L.)

New York C. R. Crosby and assistants report this insect as having been present early in the season in Steuben, Genesee, Otsego, and Ulster Counties. Aphids have now left the currant bushes.

PECAN

FALL WEBWORM (Hyphantria cunea Drury)

Florida F. M. O'Byrne (August 15). "This insect is beginning to make its appearance all over the pecan-growing sections of the State. This is quite a bit earlier than usual and from all appearances it is going to do more damage than usual."

PECAN SHUCKWORM (Laspeyresia caryana Fitch)

Louisiana T. H. Jones (July 24). "Infested nuts received from a correspondent in Monroe."

GRAPE

GRAPE LEAPHOPPER (Erythroneura comes Say)

New York J. B. Palmer (August 17). "This insect was fairly abundant early in the season. By July 7 most of the insects had reached the adult stage. The infestation was not serious anywhere in Ulster County. This insect was also observed infesting grapes in Nassau County."

F. Z. Hartzell (August 13). "More numerous in Chautauqua County than for a number of years."

GRAPE ROOTWORM (Fidia viticida Walsh)

New York F. Z. Hartzell (August 13). "More numerous than any year since 1914."

GRAPE-BERRY MOTH (Polychrosis viteana Clem.)

New York F. Z. Hartzell (August 13). "Not very numerous this season in Chautauqua County."

Delaware C. O. Houghton (July 28). "This insect does a moderate amount of injury every year in this State."

EIGHT-SPOTTED FORESTER (Alypia octomaculata Fab.)

New York F. Z. Hartzell (August 13). "The larvae of this insect were more common than last season about the middle of July but not sufficiently numerous to require control measures. They are now very scarce."

GRAPE CURCULIO (Craponius inaequalis Say)

Arkansas W. J. Baerg (July 27). "Adults began emerging on this date. The pest is increasing in this State according to our limited observations."

CITRUS AND SUBTROPICAL FRUIT INSECTS

PINEAPPLE SCALE (Pseudococcus bromeliae Bouche')

Florida C. P. Sheffield (August 9). "Doing more damage this year than ever before at Pahokee."

COMMON WHITE FLY (Dialeurodes citri Ashm.)

Louisiana T. H. Jones. "Infested leaves sent to the Experiment Station from Rosedale August 9."

SOFT BROWN SCALE (Coccus hesperidum L.)

Louisiana T. H. Jones. "Specimens sent in from Addias July 12."

CITRUS MEALYBUG (Pseudococcus citri Risso)

Mississippi R. W. Harned (August 29). "The citrus mealybug is very abundant in the southern half of the State."

TRUCK CROP INSECTS

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York F. Z. Hartzell (August 13). "Present in about normal numbers in Chautauqua County."

C. R. Crosby and assistants report this insect as the worst insect pest in Clinton County during the latter part of July. Growers were spraying as often as twice a week in attempts to control this pest. This insect was also serious in Washington County. In Wayne County it was more numerous than last year but not seriously abundant; also present in small numbers in Erie, Onondaga, Steuben, Ulster, and Albany Counties. Very scarce in Nassau and Suffolk Counties.

Maryland J. A. Hyslop (August 30). "Very scarce in the eastern part of Montgomery County this year."

Wisconsin S. B. Fracker (July 20). "More than usually abundant throughout the State." (Aug. 25) "Still doing much damage."

POTATO FLEA-BEETLE (Epitrix cucumeris Harr.)

Maine E. M. Patch (August 19). "Excessively numerous in many Aroostook localities, the fall brood being in evidence the first two weeks in August."

New York F. Z. Hartzell (August 13). "Not as common as last season. Present in practically all fields, however."

C. R. Crosby and assistants. "Late in July unsprayed fields throughout the southern part of Erie County were seriously infested, about 15 per cent of the foliage being destroyed. Very few were present by the middle of August. During the middle of July this insect was very abundant and doing considerable damage in Wayne County. In Orleans County flea-beetles had apparently finished their work by the middle of July; very few were present in the fields by August 5. In Genesee County this insect was very numerous the latter half of July, doing much damage during the dry weather; by July 22 a noticeable reduction in the damage of this pest was observed, probably due to rains. On July 30 the worst outbreak of the year was observed at Bergen in this county and the pest was still active and destructive on August 15. Quite numerous and injurious in Steuben County. Numerous in some sections of Onondaga County. Abundant and injurious in Cayuga County. The new brood of beetles were just beginning to appear by August 1 in Washington County. Injurious to some extent in several small fields in Ulster County during the middle of July. Exceptionally destructive in Albany County. Adults present in large numbers and doing serious damage to potato and cucumbers in Nassau County on August 15. Quite scarce in Suffolk County during late July."

Kentucky Mr. Valteau. "Flea-beetles have been particularly severe about Lexington this season, causing in many cases a complete defoliation of the early crop Cobblers. Controlled by early spray of Bordeaux and arsenate of lead but Bordeaux alone applied three times had no repellent effect."

Minnesota A. G. Ruggles (August 19). "The potato flea-beetle is quite numerous this year."

SEED-CORN MAGGOT (Hylemyia cilicrura Rond.)

New York H. C. Hockett (July 16). "Adults common especially in potato fields in Nassau County."

POTATO APHIS (Macrosiphum solanifolii Ashm.)

Maine E. M. Patch (August 19). "Did not become abundant on potatoes in the vicinity of Presque Isle and northern Arcostock this summer. Their chances were handicapped by fungus and insect enemies on the rose this spring. The lady-beetles had the potato colonies under control early in August and by August 11 were roaming about as if in danger of famine. The return migration to rose had begun by that date. Lady-beetles were also present on the rose, being held over by a large infestation of Myzus rosae which they had about demolished by that time; so I assume they will have an appetite whetted for what fall colonies of the potato aphis develop there. In the vicinity of Houlton on August 10 this species had colonized the terminal shoots in large numbers. Specimens attacked by fungus were common, however, and if conditions favorable to the spread of that develop, last season's experience of the potato aphis in the northern part of the county seems likely to be repeated through the southern part this year."

New York F. Z. Hartzell (August 13). "Very scarce on potatoes; none now present on tomatoes in Chautauqua County."

C. R. Crosby and assistants. "During late July these insects were causing many leaves to wilt in the southern part of Erie County. The insect was very scarce over the rest of the State. The outbreaks on Long Island were practically eliminated during the middle of July by the heavy rains."

APPLE LEAFHOPPER (Empoasca mali LeB.)

New York F. Z. Hartzell (August 13). "About the middle of July several patches of early potatoes were observed to be severely infested. This insect is now more common than usual, some of the early plantings being severely injured."

P. J. Parrott (July 16). "Tipburn may be observed, due to the work of this insect in potato plantings in Ontario County."

C. R. Crosby and assistants report this insect as being quite numerous in Erie County the middle of August. In Wayne County some fields were damaged to the extent of 40 to 50 per cent by the middle of July, and by the end of July practically all of the leaves were tip-burned in Wayne County. Rather plentiful and destructive in Orleans, Steuben, Genesee, Onondaga, Cayuga, Ulster, and Washington Counties. Present in small numbers in Nassau County. Dusting with 2 per cent nicotine dust and Bordeaux has proved of little value in repelling this pest."

Wisconsin S. B. Fracker (July 26). "About as numerous as during the season of 1919 and 1920 throughout the State." (August 25). "The leafhopper became a serious limiting factor in the commercial growing of potatoes in the northern counties for the first time this year."

Minnesota A. G. Ruggles (August 19). "Perhaps one of the most abundant and destructive insects of this summer has been the apple leafhopper on potatoes. It has done a tremendous amount of damage throughout the potato growing area."

TARNISHED PLANT-BUG (Lygus pratensis L.)

Maine E. M. Patch (August 19). "Has been unusually prominent this year. Eggs were deposited in potato leaves and stalks and the young developed in large numbers."

New York C. R. Crosby and assistants (August 15). "Adults observed in large numbers in Nassau and Steuben Counties and about in normal numbers in Albany County."

THREE-LINED POTATO BEETLE (Lema trilineata Oliv.)

New York C. R. Crosby and assistants report this insect as being present in small numbers this year in Wayne, Steuben, and Chautauqua Counties.

NORTHERN TOBACCO HORNWORM (Phlegethontius quinquemaculata Haw.)

New York C. R. Crosby and assistants (August 15). "Present in small numbers in Erie County; were quite numerous during the latter part of July. Larvae found in destructive numbers in several fields in Genesee County, first two weeks in August, in many cases stripping the foliage of at least 10 per cent of the plants, also unusually common on tomatoes. More numerous than usual in Orleans County. Causing considerable injury in one 6-acre field in Onondaga County. Present in about normal numbers in Chautauqua and Ulster Counties. This pest is also doing considerable damage in Nassau County on Long Island."

Wisconsin S. B. Fracker (July 26). "A very sudden and unusually serious outbreak of this insect occurred during the last week of July in Fond du Lac and Lincoln Counties. This outbreak attracted much newspaper attention. Many growers are now spraying and dusting."

WHITE FLY (Species unknown)

- Arkansas W. J. Baerg (July 23). "A very serious local infestation of white flies attacking tomatoes has developed at Fayetteville. The entire plantings are now practically killed out."

CABBAGE

CABBAGE MAGGOT (Hylemyia brassicae Bouché)

- New York C. R. Crosby and assistants (August 15). "Adults and pupae present in Nassau County. The pest is no longer injurious, however."

IMPORTED CABBAGE WORM (Pontia rapae L.)

- Maine E. M. Patch (August 19). "This insect seems to be generally abundant in the State this year."

- New York F. Z. Hartzell (July 30). "This insect is very common in Chautauqua County."

C. R. Crosby and assistants report this insect to be on the decrease in Erie County. In Wayne County from 8 to 10 per cent of the plants were destroyed by the middle of July. In Orleans County this insect was so numerous by the end of July that spraying was necessary. Present in small numbers in Genesee County by the middle of July. The second-brood larvae were pupating in Ontario County on August 4. In Tompkins County parasites had this insect well under control by July 25, especially Apanteles glomeratus. Some injury being done in Cortland, Albany and Ulster Counties, not serious in Nassau County.

- Montana R. A. Cooley (August 23). "There is a very noticeable increase in the abundance of this insect during the present season."

CABBAGE APHIS (Brevicoryne brassicae L.)

- New York P. J. Parrott (July 16). "Causing considerable apprehension in Ontario County. A very large percentage of the growers are treating their plants in efforts to combat this aphid."

C. R. Crosby and assistants report this insect as present in small numbers in Erie, Wayne, Orleans, Genesee, Chautauqua, Onondaga, and Tompkins Counties. The pest was much more serious earlier in the month, but parasites and ladybirds have practically controlled the outbreak.

- Maryland J. A. Hyslop (August 30). "Early this month the cabbage aphid was present in large numbers in the eastern part of Montgomery County. Parasites have practically wiped out the outbreak by this time."

HARLEQUIN CABBAGE BUG (Murgantia histrionica Hahn)

- Missouri L. Haseman (August 29). "The harlequin cabbage bug continues to come in for its share of notoriety, doing serious damage to cabbage and other related crops."

- Texas O. G. Babcock (July 29). "The harlequin cabbage bug is present but not in excessive numbers this year."

Mississippi R. W. Harned (Aug. 29). "The harlequin cabbage bug has been reported as abundant at several places."

DIAMOND-BACK MOTH (*Plutella maculipennis* Curtis)

New York H. C. Hockett (August 16). "Adults are generally present throughout Nassau County. This insect is not injurious, however, this year."

CABBAGE LOOPER (*Autographa brassicae* Riley)

New York H. C. Hockett (August 15). "The larvae are present on isolated plants in large numbers. This pest is not generally injurious, however."

CABBAGE WEBWORM (*Hellula undalis* Fab.)

Mississippi R. W. Harned (August 29). "J. G. Hester reports the imported cabbage webworm as very abundant on young cabbage and rape at Agricultural College."

GREEN PEACH APHIS (*Myzus persicae* Sulz.)

New York H. C. Hockett (August 1). "During the middle of July seed beds and later plantings were quite generally infested by this aphid."

STRAWBERRY

WHITE GRUBS (*Phyllophaga* sp.)

New York C. R. Crosby and assistants report many plantings seriously infested by white grubs, an acre patch being nearly ruined in Ulster County. This was planted on sod land this spring.

Indiana J. J. Davis (August 16). "White grubs have been the subject of repeated inquiries the past few weeks. Injury to corn is often reported, but injuries to strawberries have been more often the subject of complaint. White grubs are more abundant in Indiana at present, apparently, than at any time since the writer has followed the insect problems in the State; that is, since 1911."

Nebraska M. H. Swenk (August 15). "The greatest number of complaints of injury by insect pests during the month ending August 15 were in relation to the attack on strawberry beds, blue-grass lawns, and flowering plants by white grubs. A Dodge County nursery suffered serious injury to seedlings through these pests and some reports of injury to grain fields were received."

STRAWBERRY LEAF-ROLLER (*Ancylis comptana* Froehl.)

New York F. Z. Hartzell (August 13). "This insect is present in about normal numbers in Chautauqua County."

STRAWBERRY CROWN-WORMER (Species undetermined)

Wisconsin S. B. Fracker (July 12). "Lepidopterous larvae which answer the descriptions given under the above popular name were collected in strawberry beds for the first time in Wisconsin. We are now rearing these larvae."

OBSOLETE-BANDED STRAWBERRY LEAF-ROLLER (Archips obsoletana Walk.)

New York F. Z. Hartzell (July 16). "Larvae of this insect were occasionally seen in Chautauqua County."

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

New York F. Z. Hartzell (July 16). "Common but not especially injurious in Chautauqua County."

L. C. Tyler (July 30). "Unusually common this year and very numerous on all plantings in Genesee County."

Indiana J. J. Davis (August 16). "Asparagus beetle is common this year in northern Indiana."

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Alabama W. E. Hinds (August 26). "The Mexican bean beetle continues to spread slowly westward and has reached the northwestern corner of the State. Its spread south and southeastward has not been marked during the past two months but further spread is anticipated before frost. In the infested area table beans have been very seriously damaged and the attack upon cowpeas and soy beans is now beginning. The beetles have taken on additional food plants, the principal ones of economic importance being alfalfa, Melilotus, velvet beans, and a few others of lesser value."

BROWN COLASPIS (Colaspis brunnea Fab.)

New York P. D. Rupert (June 18). "Causing considerable damage to bean foliage in Wayne County."

BANDED FLEA-BEETLE (Systema taeniata Say)

New York G. E. Smith. "Causing considerable trouble to bean growers in Orleans County."

Indiana H. F. Dietz (August). "One report of serious injury to lima beans by the pale flea-beetle was received on June 25 from Greenwood."

RED SPIDER (Tetranychus telarius L.)

Indiana J. J. Davis (August 16). "The red spider has recently been reported from various sections as damaging beans."

CUCUMBER

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

- Massachusetts A. I. Bourne (August 18). "More abundant than usual in Hampshire County. Much wilting of squashes and cucumbers."
- New York F. Z. Hartzell (July 16). "Present in about average numbers."
- C. R. Crosby and assistants report this insect as more numerous than usual during the middle of July in Genesee County. Present in small numbers in Chautauqua, Ulster, Albany, and Nassau Counties.
- Minnesota A. G. Ruggles (August 19). "The striped cucumber beetle is extremely abundant this year, working on all cucurbits."
- Mississippi R. W. Harned (July 23). "Was very numerous during the early spring, but during the past month has been very scarce."
- Texas M. C. Tanquary. "Mr. V. L. Cory reports serious infestation on cucumbers and cantaloupes at Pecos during the past week of August."

SQUASHES AND MELONS

SQUASH-VINE BORER (Melittia satyriniformis Hübner.)

- Massachusetts E. R. Farrar (August 13). "About three times as numerous as usual in Middlesex County, about 50 per cent of the crop being damaged."
- H. F. Thompson (August 12). "In Essex County from 30 to 40 per cent of the crop was damaged by this insect."
- Connecticut I. W. Davis (August 20). "Occurring in noticeable numbers at Danielson."
- Delaware C. O. Houghton (July 25). "About as numerous as usual about Newark."
- New York C. R. Crosby and assistants report this insect as doing serious damage in Wayne, Dutchess, Albany, Tompkins, and Nassau Counties.
- Missouri L. Haseman (August 29). "This insect has continued to damage melons and other cucurbits during the month and has attracted considerable attention in Missouri this year."

PICKLE WORM (Diaphania nitidalis Cram.)

- Mississippi R. W. Harned (August 15). "This insect is almost always a serious pest in Mississippi."

COTTON APHIS (Aphis gossypii Glov.)

- Missouri L. Haseman (August 29). "Some serious damage has been done recently by melon louse on cucumbers, late melons, and cantaloupes."
- Texas M. C. Tanquary (August 22). "Reported by Mr. V. L. Cory as attacking melons at Pecos. Melon growers are spraying with nicotine sulphate."

SQUASH BUG (Anasa tristis DeG.)

- New York E. P. Felt (July 23). "Mr. A. L. Brower reports that the squash bug was very destructive in Madison County on June 28. (August 23). This insect is reported as very numerous throughout Valley Falls."
- New York F. Z. Hartzell (August 19). "This insect is now quite numerous in gardens in Onondaga and Chautauqua Counties."
- C. R. Crosby and assistants report this insect in small numbers and doing a small amount of damage in Nassau, Wayne, Albany, Genesee, and Ulster Counties."
- Indiana J. J. Davis (August 16). "The squash bug is quite common this year and the subject of frequent inquiries."
- Nebraska M. H. Swenk (August 15). "The squash bug was frequently the subject of inquiry."

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

- Delaware C. O. Houghton (July 26). "This insect is not as abundant as usual. Very few have been seen up to date."
- Texas O. G. Babcock (July 29). "Very injurious in early spring to squash and pumpkins, destroying the cotyledons. Still present but no serious damage being done."

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

- Massachusetts H. T. Fernald (August 20). "Onions have been quite seriously attacked by thrips and the result of their work is now evident, the crop being greatly reduced in most of this region by their work."
- New York C. R. Crosby and assistants report this insect as being more abundant and serious than last year, the outbreak starting the middle of July in Genesee County. The damage was very serious on 1,000 acres of onions about Elba in this County. By August 15 the insect was still numerous, but not as injurious as earlier in the season. This pest in conjunction with the dry season has prematurely killed the onion tops

on the muck lands in Orleans County. In Wayne County, about Williamson this insect was so very serious that many growers had decided about the middle of July to plow up their onions and put in late lettuce. Rains in late July, however, helped the onion crop. During the latter part of July they seemed to be leaving the onions and attacking lettuce and celery in nearby fields. A slight outbreak occurred in late July in Nassau County, the insects attacking onions, carrots, lettuce, spinach, beans, and corn. Heavy rains in early August reduced this outbreak.

Wisconsin

S. B. Fracker. "More injurious the past three years than previously about Milwaukee."

YELLOW-BEAR CATERPILLAR (Diacrisia virginica Fab.)

Delaware

C. O. Houghton (July 28). "Adults of the first brood are now emerging. The accumulated excess temperature to date is approximately one thousand degrees."

ONION MAGGOT (Hylemyia antiqua Meig.)

Colorado

C. P. Gillette. "For a few years past radishes and onions in northern Colorado have suffered rather severely from maggots. Turnips are also being attacked to some extent in home gardens. For two or three years past in the Fort Collins section onions have suffered a heavy percentage of loss. I have never had a complaint of maggots injuring or attacking cauliflower."

BEETS AND SPINACH

SUGAR-BEET WEBWORM (Loxostege sticticalis L.)

Nebraska

M. H. Swenk (August 15). "In the northern Platte Valley there was a plentiful flight of moths of the sugar-beet webworm during July and a necessity of fighting this pest by spraying developed during that month in the region mentioned. However, the outbreak is being successfully repressed."

Colorado

C. P. Gillette. "The spring brood of moths of this insect appeared in moderately large numbers in most of the beet-growing sections of eastern Colorado this year but the prompt action of the Sugar Companies and the farmers with their power spraying outfits soon brought the worms under control. As a result, only an occasional field, where thorough spraying was not attended to in time, was seriously injured. Paris green at the rate of 4 pounds per acre, as recommended by Mr. Asa Maxson, of the Great Western Sugar Companies, is very generally used and with very satisfactory results."

TRIANGULAR FLEA-BEETLE (Disonycha triangularis Say)

Nebraska M. H. Swenk (August 15). "During the middle of July there was an unusual abundance of this beetle in Kimball, Cheyenne, Deuel and Morrill Counties, and as they were found abundantly in the wheat fields, their presence caused considerable comment. They fed, however, only on chenopodiaceous weeds, and in a few instances on beets, and did not serious injury."

SPINACH LEAF-MINER (Pegomya hyoscyami Panz.)

New York C. R. Crosby and assistants report this insect as still abundant in Wayne and Nassau Counties. Larvae, adults, and eggs were present in Nassau County on August 15, the larvae attacking the newly sown spinach.

EGGPLANT

Alcaeorrhynchus grandis Dall.

Florida J. R. Watson (August 15). "This insect is about as abundant as usual in the vicinity of Cocoa. The parasite Trichopoda pennipes is destroying about 50 per cent of the bugs."

SWEET POTATO

SWEET-POTATO WHITE FLY (Bemisia inconspicua Quaint.)

Florida. J. R. Watson (August 15). "This insect is always present on sweet potatoes in this State, but seldom does much damage. It is much worse this year and complaints have been coming in from all over the State."

CAULIFLOWER

ONION THRIPS (Thrips tabaci Lind.)

New York I. H. Vogel (August 13). "Many growers at Mattituck, Long Island, have continued to set cauliflowers ten days later than usually considered safe due to a shortage of plants caused by thrips. The thrips were first found on the seed beds on June 22 and have been present since that time, first in the seed beds and later in the fields."

BLISTER BEETLES (Epicauta spp. and Macrobasis unicolor Kby.)

Indiana J. J. Davis (August 16). "These insects have been common pests of various vegetables for the past six weeks."

Illinois W. P. Flint (August 18). "Several soy-bean fields in the southern half of the State have been damaged from 5 to 10 per cent. These insects are also reported as doing damage to potatoes, tomatoes, cabbage, and beans; in some cases gardens were nearly ruined."

M. H. Swenk (August 15). "In southern Jefferson County potato and beets were locally considerably injured by the banded black blister beetle, Epicauta segmentata. In Dakota County garden truck was injured by the gray blister beetle, Epicauta cinerea."

Mississippi R. W. Harned (August 29). "Complaints continue to come from many counties in regard to the blister beetles. Epicauta marginata seems to be the chief offender."

FOREST AND SHADE-TREE INSECTS

GENERAL FEEDERS

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S. & A.)

- New York C. R. Crosby and assistants. "This insect is reported as occurring in very small numbers in Nassau, Albany, Genesee, and Chautauqua Counties during late July."
- Illinois W. P. Flint (August 18). "All the larger cities and towns in the northern end of the State have had some damage to shade trees by this pest, which is more numerous than last year."
- Nebraska M. H. Swenk (August 15). "The white-marked tussock moth continued more than normally abundant on shade trees."

FALL WEBWORM (Hyphantria cunea Drury)

- Massachusetts A. I. Bourne (August 18). "This insect is unusually abundant this year in Hampshire County."
- Connecticut W. E. Britton (August 20). "Mr. I. W. Davis reports this insect as being quite numerous at Danielson. It is abundant everywhere throughout the State."
- Delaware C. O. Houghton (July 27). "This insect is more numerous than last year. Webs are now very common on quite a variety of trees and shrubs."
- Indiana J. J. Davis (August 16). "Webworms on timber and shade trees are everywhere abundant and especially in the southern part of the State where the conspicuous webs are a common sight."
- Maryland J. A. Hyslop (August 30). "This insect is much more common than last year in eastern Montgomery County."
- Nebraska M. H. Swenk (August 15). "The fall webworm has been disfiguring shade trees over the eastern half of Nebraska during the month."
- Wisconsin W. A. Reich (August 1). "Severe local damage in Lincoln County on apples."
- Mississippi R. W. Harn (August 29). "The fall webworm, Hyphantria cunea, is more numerous throughout Mississippi at present than for several years. Many small persimmon trees are completely defoliated. Sweet gum, hickory, pecan, and other trees are also being attacked."

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

- New York E. P. Felt (August 12). "I have received a report from Mr. John Dunbar that there was a bad outbreak of this insect near Rochester about a month ago."
- Pennsylvania E. P. Felt (August 12). "Mr. Edward Costich reports that this insect was very destructive in Philadelphia this year."

Kansas G. A. Dean (August 18). "There is an unusually serious outbreak of the evergreen bagworm; they are not only defoliating pine, cedar and arbor vitae, but also shade trees, particularly the elm, maple, and boxelder."

Arkansas W. J. Baerg (July 25). "This pest is much more abundant than usual about Yellville. The woods here consist in a large part of cedars, and these are seriously infested."

GIPSY MOTH (Porthetria dispar L.)

Maine E. M. Patch (August 19). "Specimens of a female moth were received from Auburn, Maine, on August 11 with a report that these moths have recently come in swarms, literally covering the trunks of the willow trees about the place."

MAPLE

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

New York M. C. Hammond (August 6). "Appearing generally over Orange County".

Indiana J. J. Davis (August 16). "The cottony maple scale was unusually abundant as previously reported throughout the northern half of Indiana."

Illinois W. P. Flint (August 18). "Severe damage to maples of several species has been reported in a number of cities and towns in the northern half of the State."

Minnesota A. G. Ruggles (August 19). "Cottony maple scale is reported from two or three places in the State. In some places it is actually killing out boxelder trees and soft maples."

WOOLLY MAPLE LEAF-SCALE (Phenacoccus acericola King)

New York M. D. Leonard (August 5). "This insect is reported as abundant on shade trees in Walden, Chester, and Goshen."

E. P. Felt (August 23). "Very bad on the leaves and trunks of sugar maple at Highland Park."

ELM

ELM LEAF-BEETLE (Galerucella luteola Mull.)

Massachusetts E. R. Farrar (August 13). "Quite abundant in Lincoln (Middlesex County) this year. Have not seen them before for several years."

New York E. P. Felt (August 19). "Mr. R. E. Horsey reports an enlargement of the area infested, and Mr. Bell reports the grubs feeding on the 19th of August. Spraying with arsenate of lead is being continued in Rochester."

H. C. Hockett (August 12). "Foliage injury noticed in Nassau County."

Oregon L. P. Rockwood (August 13). "Shade trees in various parts of Forest Grove are badly eaten. The larvae now becoming scarce. The first serious injury observed last year on the Campus of the Pacific University."

ELM BORER (Saperda tridentata Oliv.)

Nebraska M. H. Swenk (August 15). "Injury by the elm borer has been very frequently complained of during the month."

BUMBLE FLOWER BEETLE (Euphoria inda L.)

Minnesota A. G. Ruggles (August 19). "The bumble flower beetle has been very abundant this month. I have two records where this insect was eating into soft bark of trees, one on elm, and the other on red maple."

WHITE ELM SCALE (Chionaspis americana John.)

Delaware C. O. Houghton (July 25). "Several of the small elm trees on University campus badly infested with this species."

Nebraska M. H. Swenk (August 15). "The scale insect most frequently reported has been the white elm scale."

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

Delaware C. O. Houghton (July 21). "Have found a few specimens of this species on elm trees on the University campus at Newark."

POPLAR

POPLAR BORER (Saperda calcarata Say)

New York E. P. Felt (August 21). "Bad in poplars at Cobb's Hill."

Nebraska M. H. Swenk (August 15). "Injury by the poplar borer has been very frequently complained of during the month."

Phyllonorycter tremulcidella Braun

Idaho J. C. Evenden (August 24). "Practically every shade tree in Coeur d'Alene City is very heavily infested."

TULIP TREE

TULIP-TREE SCALE (Toumevella liriodendri Gmel.)

Indiana J. J. Davis (August 16). "The tulip-tree lecanium is very common on the tulip tree or yellow poplar in the southern half of Indiana."

WALNUT AND BUTTERNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

New York

M. D. Leonard (July 22). "Much foliage injury reported to many old trees at Eden Center in Erie County."

W. T. M. Forbes (August 19). "Observed two trees entirely stripped of foliage and several others badly eaten in Ithaca. Caterpillars now in the last two larval stages and beginning to migrate."

CATALPA

CATALPA SPHINX (Ceratomia catalpae Boisd.)

Delaware

C. O. Houghton (July 27). "Caterpillars of this species are nearly full grown at Newark."

J. J. Davis (August 16). "The catalpa sphinx caterpillar continues to be reported frequently from southern Indiana."

PINE

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

New York

M. D. Leonard (August 15). "Badly infested specimens received from LeRoy."

E. P. Felt (August 19). "A careful examination of the badly infested trees in Highland Park, Rochester, shows a few live new scale; however, the spraying was at least 90 per cent effective. Several trees in a different portion of the park found this month infested with these insects; evidently these trees were infested last year but were not noticed."

Delaware

C. O. Houghton (August). "This species occurs upon pine on the University campus at Newark."

ABBOTT'S WHITE PINE SAWFLY (Lophyrus abbotii Leach)

Maine

E. M. Patch (August 19). "On my return to Orono, I found specimens of larvae of this insect from Sebec and Rockland with complaints of their abundance on white pine. This species was also rampaging last year."

EUROPEAN PINE SAWFLY (Diprion simile Hartig)

New York

E. P. Felt (August 19). "Mr. R. E. Horsey reports that this insect is causing a little damage to Scotch pine at Cobb's Hill."

LARCH

SAWFLY (species undetermined)

Idaho

J. C. Evenden (August 24). "Practically every larch tree in the Coeur d'Alene region is severely attacked. Previous attacks have never been reported."

CAMPHOR

CAMPHOR SCALE (Pseudaonidia duplex Ckll.)

Mississippi

R. W. Harned (August 29). "The Japanese camphor scale was discovered on August 13 at Jackson, Miss., by G. D. Dorroh. This is the second infestation found in Mississippi. The infested plants had come from New Orleans during the past two years. All infested plants have been burned and the vicinity has been carefully inspected."

S O U T H E R N F I E L D C R O P I N S E C T S

COTTON

COTTON BOLL WEEVIL (Anthonomus grandis Boh.)

The cotton boll weevil surveys carried on under the direction of Mr. B. R. Coad of the Bureau of Entomology were received August 13. The reports from the several States are as follows:

South
Carolina

"Reports from two counties in the south-central part of the State indicate an average infestation of 56 per cent, the infestation in Aiken County averaging from 30 to 35 per cent. Crop prospects fair. Infestation in Barnwell County 70 to 95 per cent. Crop very short, farmers say less than one-half crop. Heavy cut in fertilizer applied this year."

Florida "Weevil infestation very high in the northern portion of the State. Crop prospects poor to fair."

Georgia "East-central part of the State has an average infestation of from 70 to 80 per cent. West-central part 40 per cent."

Alabama "Average infestation for Marengo County from 15 to 25 per cent. Heavy infestation in river bottoms adjoining timber, but no damage elsewhere. Crop very poor as a whole, due to extreme drought and lack of fertilizer. Tuscaloosa County about the same as Marengo County; crop slightly better, due to a few additional rains earlier in the season. Weevil infestation very light in Montgomery and Autauga Counties."

Mississippi "Weevil infestation fairly heavy in Lincoln County averaging around 40 per cent. Cotton shedding badly and this is causing considerable boll weevil injury by weevils in Leflore County. Weevil infestation scattered but rather heavy, complete infestation being noted in a few places. Weevil infestation in Holmes County about the same as in Leflore County. Weevil infestation rather heavy in Washington and Sunflower Counties; cotton conditions fair, but late owing to replanting."

Louisiana "Weevil infestation very heavy and cotton crop poor in the northeastern portion of State. Infestation generally heavy to very heavy in the southern and central portions of the State."

Arkansas "Weevil infestation very heavy, cotton crop poor to fair."

Oklahoma "Weevil infestation heavy and cotton conditions poor."

Texas "The general State conditions is noted as having deteriorated considerably the past 10 days and is now considered to be about 60 per cent normal. Infestation practically complete in Victoria County. Williams County, weevil infestation fairly

light; crop however, poorest in many years. Collins County infestation somewhat spotted but generally very heavy. Infestation heavy and prospects very poor in Fannin and Cooke Counties."

Alabama W. E. Hinds (August 26). "Boll weevil damage in the central and southern part of the State is less than had been anticipated at the beginning of the season, because of the control of the first generation of weevils by the hot, dry weather occurring during the month of June and most of July in most of that region. Fields, however, that received more rainfall are suffering heavier damages. In northern Alabama the injury from the weevil is heavier than it has been in any previous year. As a general rule comparatively little dusting control has been practiced this season."

Mississippi R. W. Harned (August 29). "The boll weevil is very abundant in all parts of the State. The entire State is now probably more seriously infested than ever before at this season of the year."

Texas M. C. Tanquary (August 22). "Infestation continues to increase in the vicinity of College Station in spite of the dry, hot weather."

COTTON APHIS (Aphis gossypii Glov.)

Texas M. C. Tanquary (August 22). "During the latter part of July and the first week in August there was a heavy infestation in some cotton fields at College Station. The infestations have been greatly reduced by parasites and climatic conditions."

BOLLWORM (Chloridea obsoleta Fab.)

Texas M. C. Tanquary (August 22). "Since July 22 many complaints have been received concerning damage to cotton by the bollworm. The infestation seems to be quite general."

COTTON WORM (Alabama argillacea Hubn.)

Alabama W.E.Hinds (August 26) "The cotton leafworm has just been reported from Benton, Lowndes County, occurring upon some very late planted thrifty young cotton in which boll weevil damage is also very heavy. The initial occurrence of this species is so late that heavy defoliation is not anticipated for this season."

Mississippi R. W. Harned (August 29). "Reports of the appearance of the cotton worm have been received from various parts of the State."

GRAY HAIR STREAK (Uranotes melinus Hubn.)

Louisiana T. H. Jones (August 1). "County Agent W. H. Humble sent in infested squares and larvae collected at Alexandria."

SUGAR CANE

SUGAR-CANE MEALYBUG (Pseudococcus calceolariae Mask.)

- Louisiana T.H.Jones. "Mr. Gouaux reports on returning from a field trip that the mealybug is common on sugar cane in fields about the mills and refineries in the Franklin, Gramercy, Reserve, and Paincourtville sections. Their abundance in such fields as compared with other fields of the plantations is apparently due to the fact that the Argentine ant which attends the mealybug is more numerous in the fields about the mills and refineries."

FALL ARMY WORM (Laphygma frugiperda S.& A.)

- Louisiana T. H. Jones. "Mr. W. A. O'Neill reported an outbreak of these insects on his plantation at Baldwin early in July."

NORTHERN TOBACCO HORNWORM (Phlegethontius quinquemaculata Haw.)

- New York C. R. Crosby (July 20). "Doing considerable damage about Cato."

GRASSHOPPERS (Acridiidae)

- New York C. R. Crosby (July 20). "Reported as injurious in tobacco fields about Cato."

GREENHOUSE AND ORNAMENTAL PLANTS

ASTER

TARNISHED PLANT-BUG (Lygus pratensis L.)

- New York M. D. Leonard (August 1). "Considerable damage in College gardens at Ithaca; buds deformed or imperfect blooms produced."

WHITE GRUBS (Phyllophaga sp.)

- New York J. D. Palmer (July 30). "A large bed of asters suffered about 40 per cent from injury by white grubs in Ulster County."

BOSTON FERN

HEMISPHERICAL SCALE (Saissetia hemisphaerica Targ.)

- Louisiana T. H. Jones (July 25). "Specimens sent to the Station from Thibodaux."

COLUMBINE

COLUMBINE BORER (Papaipema purpurifascia G. & R.)

New York M. D. Leonard (July 30). "Plants in the College gardens at Ithaca badly affected. Larvae about full grown on July 18."

CYCLAMEN

SUGAR-BEET THRIPS (Heliothrips femoralis Heeger)

Indiana H. F. Dietz. "Was observed to be injuring cyclamen and chrysanthemum in an Indianapolis greenhouse July 15. On cyclamen many of the leaves were badly curled and crippled due to the attacks of these insects. The injury closely resembles that caused by the cyclamen mite."

GOLDEN GLOW

GOLDEN GLOW APHIS (Macrosiphum rudbeckiae Fitch)

New York E. P. Felt (August 1st). "Occasional considerable damage to golden glow at Big Moose."

GLADIOLI

FLOWER THRIPS (Euthrips tritici Fitch)

Indiana H. F. Dietz. "Gladioli growers, especially those who have no system for irrigating or artificial watering, have experienced trouble with the wheat thrips."

ONION THRIPS (Thrips tabaci Lind.)

Indiana H. F. Dietz. "This insect is doing very similar damage to that of the wheat thrips."

TWO-SPOTTED MITE (Tetranychus bimaculatus Harv.)

Indiana H. F. Dietz. "Red spider was also common and injurious to gladioli."

HAWTHORN

TWO-SPOTTED MITE (Tetranychus bimaculatus Harv.)

New York E. P. Felt (August 5). "Reported as very bad on American hawthorn in Genesee Valley Park."

TERRAPIN SCALE (Lecanium nigrofasciatum Perg.)

Delaware C. O. Houghton (July 21). "Crataegus on University Campus heavily infested with this species."

IVY

IVY SCALE (Aspidiotus hederæ Vallot)

Louisiana T. H. Jones (July 13). "Specimens received from Alexandria for identification."

LILAC

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York E. P. Felt (August 5). "About one-tenth as much scale on sprayed plants as compared with last year at Cobb's Hill."

M. D. Leonard (July 21). "Shrubs badly infested at Johnson City."

Delaware C. O. Houghton. "About as numerous as usual about Newark."

Indiana J. J. Davis (August 16). "The oyster-shell scale is abundant in the northern half of the State. The form on the lilac is beginning to produce the overwintering eggs. Our experience has shown that there is ample time after the last young hatch to apply effective summer sprays."

LILAC BORER (Podosesia syringæ Harr.)

New York E. P. Felt (August 3). "Damaging lilacs at Naples."

ROSE

MOSSY ROSE GALL (Dipolepis rosæ L.)

New York M. D. Leonard (August 8). "Twigs bearing galls received from Rochester."

STRAWBERRY LEAF-BEETLES (Paria canella Fab.)

Pennsylvania C. A. Weigel (July 22). "Adults of the strawberry rootworm are now emerging in large numbers in the rose houses in the vicinity of Philadelphia."

SNAPDRAGON

Cosmopepla bimaculata Thos.

New York M. D. Leonard (August 1). "Considerable damage being done in College gardens at Ithaca by stunting of the bud clusters and deforming of the individual buds."

I N S E C T S A T T A C K I N G M A N A N D D O M E S T I C A N I M A L S

M A N

COMMON CAT AND DOG FLEA (Ctenocephalus canis Curtis)

- Massachusetts H. T. Fernald (August 20). "Recently fleas have been very abundant in many parts of the State following the warm and rather damp weather of late July and have been so troublesome as to attract considerable attention in many places."
- Indiana H. F. Dietz (August 16). "Fleas in houses have been frequently reported to date. Every report has been checked back to the presence of either dogs or cats in the places."
- Central States F. C. Bishopp (August 22). "There seems to have been a marked diminution in the outbreak of fleas which occurred during spring and early summer in the central States. All the specimens examined were Pulex irritans, but the trouble has extended eastward into the north Atlantic and New England States. During August house infestations were reported in a number of localities in that section. In the lots received Pulex irritans, Ctenocephalus canis, and C. felis were found to have occurred, usually the cat and dog fleas occurring together and the human fleas alone. It appears however that cat and dog flea predominates in these districts."

DEER FLIES (Climex spp.)

- New York R. C. Shannon (August 7). "Chrysops vittatus was present and causing some annoyance at Conquest. Collected Chrysops obsoletus at Fairhaven."

TERMITES

- Texas O. G. Babcock (July 29). "Considerable increase over last year. Sticks, horse dung, etc. are well covered with the cemented dirt covering by these ants in the pastures."

MOSQUITOES (Culicidae)

New York R. C. Shannon (August 7). "Collected a specimen of Psorophora ciliata in the act of biting near Conquest. Anopheles walkorii was abundant and very annoying during the whole night at Conquest and was also collected at Fairhaven."

ANTS (Formicidae)

Indiana J. J. Davis (August). "We have had numerous inquiries reletive to ridding houses of ants. Where specimens have been submitted we have found the most serious offender to be the cornfield ant."

Alabama W. E. Hinds (August 26). "The Argentine ant is causing serious complaint and is found scattered through the principal towns and cities throughout the State. Campaigns for ant control have been started in 10 communities including the City of Mobile and Selma which are the largest infested areas known at this time."

Mississippi R. W. Harned (August 29). "The Argentine ant, Iridomyrmex humilis, has caused more complaint this summer than ever before. The Plant Board is planning to put on control campaigns in several towns in cooperation with the local authorities."

CATTLE

HORN FLY (Lyperosia irritans L.)

Texas O. G. Babcock (July 29). "Horn fly has been at its height the latter part of June at Sonora when they were numerous enough to gather about the base of the horns at times. Now almost gone, average not over 25 per animal."

F. C. Bishopp. "The horn fly became abundant in Dallas and adjacent counties in May, but decreased rapidly during June and is not causing serious annoyance to live stock in July. In south Texas the abundance was rather above normal during June."

HORSE-FLY (Tabanus rubescens Bellardi)

Texas F. C. Bishopp (August 20). "In southwestern Texas where this species occurred in injurious numbers earlier in the year it has decreased very markedly and is now causing no annoyance to live stock. Reports have been received, however, from the vicinity of Jacksboro of the unusual abundance of this species during July, but there also the number is rapidly decreasing."

STABLE FLY (Stomoxys calcitrans L.)

Texas O. G. Babcock (July 29). "The stable fly was practically unknown until the last two weeks when they have increased just enough to be noticed and to bother the legs of milk cows."

F. C. Bishopp "Throughout the spring this insect was present in more than usual numbers in north-central Texas. It has subsided remarkably during June in the rather hot, dry weather."

SCREW-WORM FLY (Chrysomya macellaria Fab.)

Texas D. C. Parman (July 29). "This species has occurred in great abundance in Uvalde and adjacent counties. The maximum abundance of cases among live stock occurred during the latter part of June and early July, subsiding rapidly after the first week in July."

O. G. Babcock (July 29). "Very abundant throughout the month of June. At its height the last week in June at Sonora. On the decline since that date, and have almost disappeared at the present time. Trapping and carcass burning have proved of value at the Experiment Station at Sonora. Only twelve cases to date this year at the Station, and six cases by one ranchman."

F. C. Bishopp (August 20). "The hot, dry weather during July reduced this pest to a point where it is causing practically little damage to live stock. It is expected that a slight increase will be experienced in the latter part of August and early September owing to more or less general August showers."

SHEEP AND GOATS

NOSE FLY (Oestrus ovis L.)

New York R. C. Shannon. "Found infesting sheep in Herkimer County."

Texas O. G. Babcock (July 29). "Nose fly of sheep is still active. Adults still appearing."

SUCKING GOAT LOUSE (Linognathus stenopsis Burm.)

Texas O. G. Babcock (July 29). "Blue or sucking goat louse very bad in some flocks; stunted the growth of the kid crop considerably."

HAIRY RED GOAT LOUSE (Trichodectes hermsi Kellogg & Nakayama)

Texas O. G. Babcock. "Is not so numerous as last year. Was greatly reduced in numbers since the spring shearing."